No. 16186

United States Court of Appeals

For the Ninth Circuit

American Mail Line, Ltd., a Corporation, *Appellant,*

vs.

Tokyo Marine & Fire Ins. Co., Ltd., a Corporation, *Appellee.*

Appeal from the United States District Court for the Western District of Washington, Northern Division

APPELLANT'S BRIEF

Bogle, Bogle & Gates
M. Bayard Crutcher
Donald McMullen
Proctors for Appellant.

603 Central Building,
Seattle 4, Washington.

The Argus Press, Seattle

SUBJECT INDEX

Page

TABLE OF CASES

STATUTES CITED

OTHER AUTHORITIES

United States Court of Appeals

For the Ninth Circuit

American Mail Line, Ltd., a Corporation, *Appellant*, vs. Tokyo Marine & Fire Ins. Co., Ltd., a Corporation, *Appellee*.	No. 16186

Appeal from the United States District Court for the Western District of Washington, Northern Division

APPELLANT'S BRIEF

JURISDICTION

This is a cargo fire case.

Libelant cargo insurer sued the respondent shipowner in admiralty in the United States District Court for the Western District of Washington, claiming for the value of the non-delivered cargo — 823,026 lbs. of barley (Libel, Tr. 3-6). Respondent answered, pleading statutory exemption from liability for fire, and cross-libeled for libelant's share of the general average sacrifice (Cross-libel, Tr. 12-14).

The barley was being carried under an ocean bill of lading, and libelant was subrogated to the rights of the cargo owner (Findings III, V, VI, Tr. 24, 26). The suit was therefore properly brought in admiralty. *The Belfast* (1869) 7 Wall. 624, 19 L.ed. 266.

Likewise, the claim for general average contribution was properly brought in admiralty. *Star of Hope,* 9 Wall. 203, and *The Jason,* 225 U.S. 32.

The District Court had jurisdiction of the libel and cross-libel. 28 U.S.C. § 1333.

Final decree—denying the shipowner the benefit of the Fire Statute and holding that libelant did not have to pay its share of general average—was entered and filed on May 21, 1958 (Decree, Tr. 35-37). Respondent thereafter filed a supersedeas bond and its notice of appeal on August 12, 1958, less than 90 days after the decree (Tr. 37-40).

This Court has jurisdiction of the appeal. 28 U.S.C. §§ 1291, 2107.

STATEMENT OF THE CASE

This suit concerns a fire in a shipment of barley being carried in the steamship *Oregon Mail* in August, 1955. The fire originated in heat from a cargo hold light accidentally turned on. It was detected and extinguished at Seattle, with damage to less than 15% of the shipment. The cargo insurer sued the carrier-shipowner for the damage to the barley. Respondent shipowner claimed exoneration under the Fire Statute and cross-libeled the cargo insurer for its share of the general average.

The trial court, the Honorable John C. Bowen, exonerated the shipowner of any fault in causing the fire, but held nevertheless that it did not use the judgment of "any prudent person" in the way it confirmed the existence of the fire and put it out. The court gave libelant its damages in full and denied the cross-libel without explanation.

Issues raised on appeal by the shipowner are:

1. Shipowner was entitled to exoneration under the Fire Statute and Carriage of Goods by Sea Act, under the facts found.

2. There was no proof or basis for court's ruling about how the fire could have been confirmed and extinguished merely by shooting CO_2 into the hold, by "any prudent person."

3. Court erred in not making any finding that the steps which appellant's officers took to extinguish fire were necessary to save both cargo and ship, and that general average sacrifice came within terms of Jason clause.

Facts About the Ship

The SS Oregon Mail is a C-3 cargo freighter, of familiar design—three holds forward of the house and

two aft. General features and dimensions are shown in capacity plan, Exhibit A-3. There is no issue of seaworthiness, and the features of the ship having to do with the fire can be pointed out briefly.

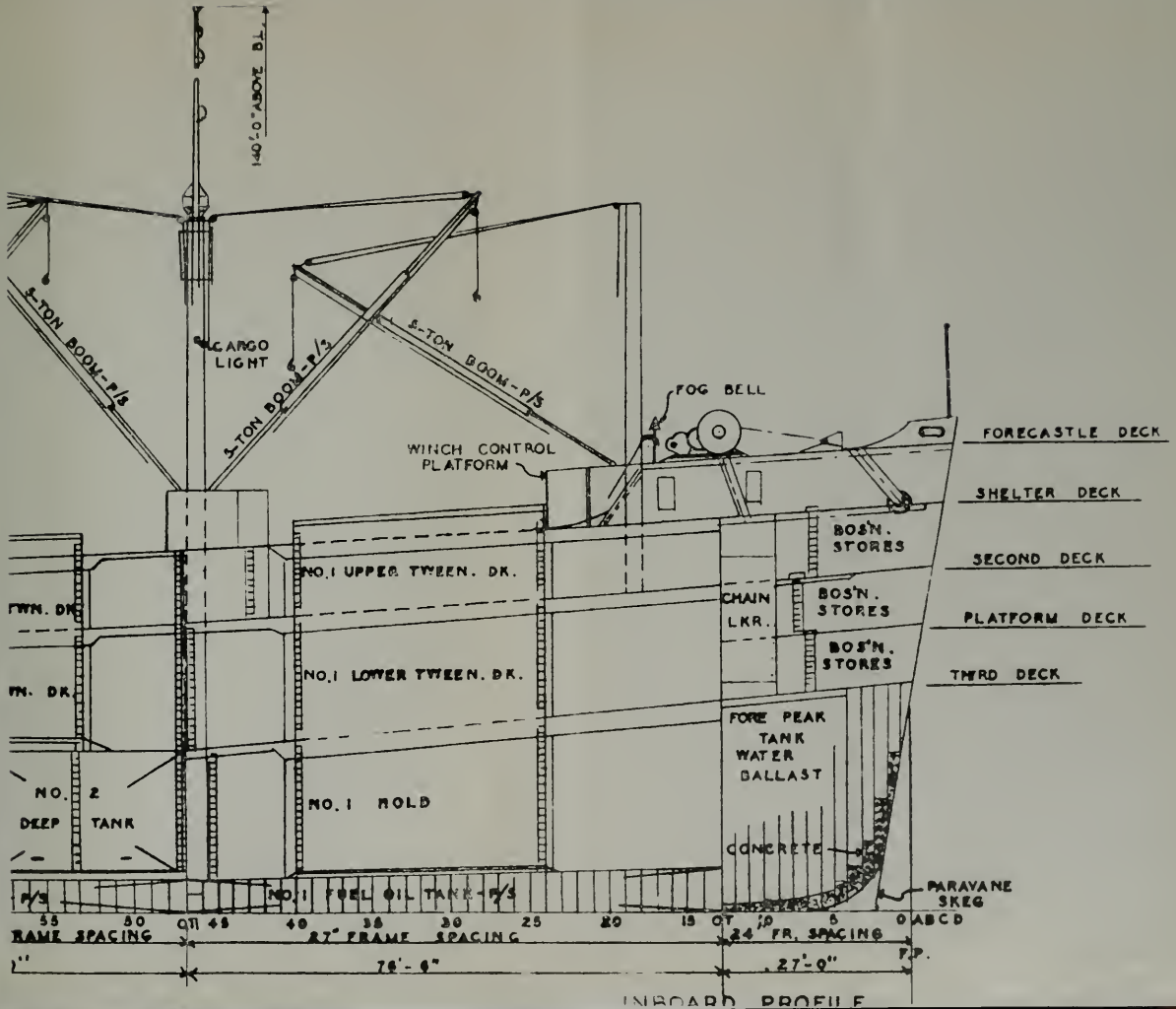
No. 1 Hold is at the bow, behind the forepeak (Ex. A-4). A scale diagram taken from the ship plan is annexed to aid the court in understanding the position of the barley and the fire.

Permanent metal cargo light fixtures are attached behind the after hatch coaming in No. 1 lower hold, and elsewhere in No. 1 hold. Photographs of these two in the after trunk, taken just after the fire, are Exhibits A-11 (port side of trunk) and A-12 (starboard side of the trunk) (Tr. 220). These lights were installed in the fall of 1954, complete with new circuits of standard marine cable, and the circuits were tested (Tr. 286, 287).

Switch and fuse panel for the lights in No. 1 hold and deck lights at No. 1 hatch is in a resistor house between hatches No. 1 and No. 2. The resistor house is secured by a locked screen panel (Ex. A-7). The mates and electricians carry keys (Tr. 133, 134). The switch panel itself has a double door—one opens to expose only the switches (Tr. 65, Exhibits A-8, A-6), the other, shaped like a picture frame, and locked, opens independently and exposes the fuse panels on both sides of the switches (Ex. 1). There are separate fuses for the light circuits in each compartment in No. 1 hold (Tr. 164).

King posts between hatches No. 1 and No. 2, standing about 70 feet high, serve to ventilate all compartments in No. 1 hold (Tr. 49, 80, 81, illustrated, Ex. A-2).

The Oregon Mail was equipped with a *Rich Audio*


140'-0" ABOVE B.L.
5-TON BOOM-P/S
CARGO LIGHT
5-TON BOOM-P/S
5-TON BOOM-P/S
FOG BELL
WINCH CONTROL PLATFORM
FORECASTLE DECK
SHELTER DECK
SECOND DECK
PLATFORM DECK
THIRD DECK
BOS'N. STORES
BOS'N. STORES
BOS'N. STORES
CHAIN LKR.
NO.1 UPPER TWEEN. DK.
NO.1 LOWER TWEEN. DK.
NO.1 HOLD
FORE PEAK TANK WATER BALLAST
CONCRETE
NO. 2 DEEP TANK
NO.1 FUEL OIL TANK-P/S
PARAVANE SKEG
55 50 45 40 35 30 25 20 15 10 5 0
A B C D
FRAME SPACING
27" FRAME SPACING
24" FR. SPACING
76'-6"
27'-0"
F.P.
INBOARD PROFILE

fire detection system. This sucks air samples from each compartment to a cabinet in the wheelhouse. The captured air passes through a lighted flare and is then exhausted outside. Smoke will set off an alarm buzzer. The system had been tested yearly (Tr. 46, 70, 71, 107-110).

The ship was also fitted with a *carbon dioxide smothering system,* including diffusers in No. 1 lower hold (Tr. 87, 88).

Barley Loaded August 17

Voyage 33 of the OREGON MAIL began uneventfully at Portland, Oregon, on August 14, 1955 (Tr. 129, Ex. A-1).

August 17 the vessel shifted across the Columbia River to a grain elevator at Vancouver, Washington, to load libelant's barley (Tr. 130, 135, 238, Ex. A-1). Chief Mate Palmer and marine suveyor Bennett inspected No. 1 lower hold before loading began for a period of about 15 minutes, and found it in good order (Tr. 130-133, 160, 170-173). The grain was poured into the holds through spouts and there were no workmen inside (Tr. 133).

Shortly after loading started the Chief Mate ordered that the fuses be pulled for light circuits in the grain holds, No. 1 and No. 5 (Tr. 64, 65, 134, 161, log entry, A-1, 1000 August 17). An electrician then pulled the fuses for the light circuits in all three compartments of No. 1 hold (Tr. 134, 161, 164).

The practice of pulling fuses to prevent mates from accidentally switching on lights in grain holds was customary (Tr. 44). It is considered good seamanship (Tr. 232, 233).

During this day — the 17th — No. 1 lower hold was filled with barley, and the bottom third of No. 1 lower tween deck as well (Tr. 134, 140). This and loading of No. 5 with barley also were the only cargo operations at Vancouver (Tr. 134, 135, Ex. A-1).

Lumber Loaded Over Barley

The ship left Vancouver that evening and proceeded down river to Longview, where it made fast at a lumber dock about 11 P.M., August 17 (Tr. 135, Ex. A-1). The next morning the Chief Mate went into No. 1 lower tween deck. He had the barley dunnaged over in preparation for loading lumber in that hold (Tr. 135, 136). Loading commenced at 9:25 A.M., and longshoremen continued stowing lumber over the barley in No. 1 lower tween deck all that day and through the night, up to 4:30 the morning of the next day, the 19th (Tr. 264-266, Ex. A-1, August 18, 19).

No. 1 Lights "Fixed"

Meantime, at 4 o'clock on the afternoon of the 18th, W. C. Hardie, a relief night mate, went on duty on the Oregon Mail (Tr. 136, 259, 266, Ex. A-1). One of his duties was to turn on deck and hold lights as required (Tr. 137, 271). He had been night mate previously, the first watch of the 18th (Ex. A-1). He knew that there was barley in No. 1 lower hold (Tr. 268) and he knew the practice of pulling fuses from light circuits in grain holds (Tr. 271, 272).

Hardie states that he turned on the ship's lights on the evening of August 18. At some time, not specified, a stevedore foreman approached him about the lights at

No. 1 (Tr. 259, 260, 270, 274, 304). Hardie called out the ship's electrician to "fix it" (Tr. 263, 269).

Questions Hardie asked the foreman and instructions Hardie gave the electrician about the lights at No. 1 were considered hearsay by the trial court, and excluded (Tr. 260, 261, 263, 264, 304).

However this may be, it is clear that the fuses were snapped back into the light circuits for all three levels of No. 1 hold some time before the 20th (Tr. 146, 147).

When the longshoremen finished loading lumber in No. 1 lower tween deck in the early morning of August 19, they covered the tween deck and quit work (Tr. 266, 267, Ex. A-1). Hardie turned off the deck lights and portable cluster lights. He did not know whether any lights were on in the lower holds (Tr. 267, 268, 269).

At 8 A.M. another gang came aboard, covered the main deck hatch at No. 1, and began loading timbers on deck (Tr. 137, Ex. A-1). This was finished at noon, and the Oregon Mail departed Longview bound for Vancouver, British Columbia (Tr. 138, Ex. A-1).

Odor or Smoke Saturday Night

The Oregon Mail arrived at Vancouver, B.C., at noon on Saturday, August 20. Loadings included sacks of asbestos in No. 1 lower tween deck, finished at 3 P.M., and then sacks of flour in No. 1 upper tween deck, evidently completed that afternoon (Tr. 138, 139, Ex. A-1).

At 8 P.M., two hours after he went on watch, Second Officer Tomlin detected a slight smoke or suspicious odor from the detector in the pilot house (Tr. 46). Neither the Master nor the Chief Mate could see any

smoke, but they agree there was a peculiar odor (Tr. 75, 143, 145, Ex. A-1, August 20).

A prompt search of the ship began.

Neither the Chief Officer nor the Second Officer could find any sign of fire (Tr. 47, 52, 143-145). However, Palmer did discover during his search that the fuses for the No. 1 light panel had been clipped back into place (Tr. 146, 147). He removed them and reported this promptly to the Captain, Wilmarth (Tr. 162).

The Chief Officer was able to enter every cargo compartment except No. 1 lower hold (Tr. 143). Suspicion narrowed to No. 1, at least, because the fire dampers on the No. 1 king posts were then shut, as a precaution (Tr. 47). The Master ordered a close watch on the smoke detector (Tr. 48, 76, 78, 111).

Neither the Captain nor the Chief Mate could identify the odor (Tr. 77, 78, 114). Some time that night or the next morning they tried heating barley on the galley stove to see if that was the odor. They still could not decide whether that was it (Tr. 111, 112).

Vessel Searched at Seattle

Meantime, the Oregon Mail finished at Vancouver, and headed for Seattle (Tr. 142). It arrived at Fisher's Dock, Seattle, at 7 o'clock Sunday morning, August 21 (Tr. 145, 146).

A close watch was being kept on the detector (Tr. 146). The odor seemed more pronounced (Tr. 77, 78). A further search of the ship was made; no smoke was present in No. 1 tween decks (Tr. 48, 49, 151). At 9

A.M., when the No. 1 king post was opened for observation, Palmer detected smoke from the port post, he believes (Tr. 146, 150). He reported this to Wilmarth. The Captain himself could not see any smoke (Tr. 77). However, he then called Capt. Greenwood, Port Captain for American Mail Line, at his home, and informed him they had indications of a possible fire in No. 1 lower hold (Tr. 77, 79, 116, 150).

Captain Greenwood in turn called James Gow, an experienced marine surveyor (Tr. 175, 176, 178, 211, 222). Greenwood, Gow and Mr. Skewes, Gow's assistant, all arrived at the ship between 11 and 12 that morning (Tr. 77, 176, 179, Ex. A-1).

A further search for signs of fire had been made meantime (Tr. 151). Greenwood questioned the Master and Chief Officer. They reported no smoke as yet, and Greenwood learned about the fuses (Tr. 223, 229, 230). Greenwood made a personal inspection with Gow, Skewes and another surveyor named Johnson (Ex. A-1).

They found no visible sign of smoke or fire (Tr. 151, Ex. A-1).

Gow himself could not find sufficient evidence to decide that there was a fire. He knew about the search throughout the vessel (Tr. 213). There was a "foreign odor" from the detector; it had "smoke taint" but it was not at that time heavily pronounced (Tr. 176, 177). There was no visible smoke in the detector (Tr. 214). There was a slight indication that the odor was more pronounced from No. 1 hold, "but it wasn't definitely determined" (Tr. 178, 212, 214). The same odor was

present in the exhaust vent from the No. 1 king posts (Tr. 214).

Gow could not see any smoke from the king post (Tr. 181).

An attempt was made to take temperatures in No. 1 lower hold, through the sounding pipes. No abnormal temperatures were found (Tr. 79, 119).

Conclusion Reached Sunday

At this point, on Sunday afternoon, Gow was not convinced there was any fire (Tr. 180). Greenwood was concerned (Tr. 233). He had never smelled an odor like it (Tr. 234). He was not certain one way or the other (Tr. 234, 235).

> "The conclusion that was reached by all concerned was that it would take watching, and accordingly the master was instructed to watch that particular area very closely and report immediately if anything should develop." (Tr. 235)

Thereafter a continuous watch was maintained on the detector, directed to No. 1 hold (Tr. 78, 80, 152). The vessel was shifted to American Mail Line's home terminal, Pier 88, Seattle, in the early evening, on schedule (Tr. 80, Ex. A-1). The Captain and a mate remained on board for any emergency (Tr. 80). Cargo operations continued (Tr. 117). The watch on the detector continued through the night, and there were frequent inspections of the entire ship, particularly No. 1 hold (Tr. 152, Ex. A-1).

Smoke Confirmed — Conference

The next morning at 8:30, Monday, August 22, surveyors came aboard to re-examine. Some time after 9

o'clock, Captain Wilmarth, Captain Greenwood and Mr. Gow spotted what appeared to be very light smoke in the detector, from No. 1 lower hold (Tr. 85, 152-154, 181, Ex. A-1). They checked all other areas (Tr. 152-154) and Captain Wilmarth could see light smoke from the No. 1 port king post "if the sun was just right" (Tr. 85). Gow could not recall seeing this (Tr. 181).

Mr. Gow, Captain Wilmarth, Captain Greenwood, Captain Swanson, the operating manager, Captain Brady, another marine surveyor and Mr. Palmer, the chief officer, then conferred. They concluded that there was a fire in No. 1 hold, and decided to take out the cargo over the barley (Tr. 81-83, 153, 154, 182, 224, 226, 227). Reasons given for that decision are discussed in the argument, pp. 26-28.

Fire Fighting

Captain Wilmarth ordered that No. 1 hold be discharged (Tr. 81, 83), and discharge was continuous from 1 o'clock Monday afternoon (Tr. 81, 117, 118) until the entire surface of the barley in No. 1 lower tween deck was cleared away at 2:05 on Wednesday morning (Tr. 87, Ex. A-1), as fast as they could go (Tr. 86).

As a precaution, the vessel stopped all other cargo activities Monday afternoon except loading of perishable refrigerated items (Tr. 83, 117, 118, Ex. A-1). A chief from the Seattle Fire Department came aboard that night to inspect (Ex. A-1).

Careful watch on the detector continued throughout the course of the fire (Ex. A-1). By Tuesday, August 23, the smoke from the detector was noticeably thicker

(Tr. 193). Officers from the Seattle Fire Department and Coast Guard came aboard to check conditions (Tr. 84, Ex. A-1).

As soon as the cargo over the barley was out, the barley was blanketed with tarpaulins and pontoons and the stevedores were cleared from the ship (Tr. 83, Ex. A-1, 0205 August 24). Captain Wilmarth then began releasing carbon dioxide into No. 1 lower hold (Tr. 86, 87). During Wednesday and on Thursday morning the ship's officers put over 9,000 pounds of carbon dioxide through the smothering line into No. 1 lower hold (Tr. 87-89, Ex. A-1). By Thursday morning there was no more smoke, no more odor from the detector (Tr. 90).

Fire Area Uncovered

On Thursday morning the stevedores commenced clamming out the barley in the lower tween deck (Tr. 83, 278). By noon the barley in the square of the lower hold had been dug into. The Chief Officer went down with oxygen breathing apparatus and heard a crackling sound aft of the coaming (Tr. 282, 283, 284, 195, 208).

Light smoke was coming from that area (Tr. 195). Palmer could not see any flames (Tr. 279). More carbon dioxide was discharged over the fire area at 2 P.M. (Tr. 283, Ex. A-1). There was the odor of burning grain (Tr. 283, Ex. A-1). When the burned barley began to come out from underneath the after coaming a bucket full was hauled out to be examined. It crackled, and the bucket was too hot to touch (Tr. 92, 226, Ex. A-1).

Water Applied

On Gow's advice, Palmer took down a hose and sprayed water through limber holes onto the area be-

hind the coaming for about 15 minutes. He still wore oxygen breathing equipment (Tr. 196, 279, 283, 284, Ex. A-1).

Damage to Barley and Ship

Discharge of burned and discolored barley from the after trunk continued from about 2 P.M. on Thursday, the 25th, until 10:30 the next morning, August 26th (Tr. 90, 91, Ex. A-1). Gow estimates that 50,000 lbs. were actually burned—734,490 lbs. in all were discharged at Pier 88 and subsequently sold as charred or smoke-tainted, although much sound barley was intermingled with the bad (Tr. 53, 187, 188, 199, 200, Ex. A-10). Barley except in the port after corner appeared to be undamaged (Tr. 281).

Estimates of the fire damage area by those who inspected it were quite consistent—one area ran 4 to 8 feet back from the hatch coaming, 5 to 10 feet in from the port beam and possibly 3 feet deep (Tr. 56, 57, 99, 100, 155, 156, 197, 198). This area was marked in red by Captain Wilmarth on Ex. A-4 (Tr. 97). The heaviest burning was there, in the vicinity of the port cargo light pictured in Ex. A-11 (Tr. 55, 102, 192, 193). There was another charred area, much less severe, under the starboard cargo light pictured in Ex. A-12 (Tr. 57, 199).

The deckhead in the after trunk was charred and burned (Tr. 56, 91, 99, 102, 226). The light cable on the port side was also severely burned (Tr. 55, 61, 99, 157). It cracked when bent by hand (Tr. 61). The cargo lights themselves were blackened and caked with burned barley (Tr. 55, 156).

Existence of Fire Disputed

Wilmarth, Gow and Tomlin all concluded from their examination that there had been a fire in the after trunk of No. 1 lower hold (Tr. 63, 102, 200).

No witness who was on the OREGON MAIL during this time expressed any other view. However, a chemist-witness for libelant, Mr. Smith, claimed to reproduce very similar barley char in an oven set at 600 degrees for only 20 minutes (Tr. 248, 249, Ex. 4). He examined about 6 kernels of char taken from a sample of the burned cargo and concluded that the char never burned at over 800 degrees, judging from its shine and the absence of visible ash (Tr. 241, 250, 251). From this he implied that there would have been no "fire" giving a flame or glow (Tr. 244, 245).

Fire Fighting Ends

To complete the ship's story, it should be reported also that at 5:15 P.M. on Thursday the hold was certified gas free. As of 7 P.M. the last evidence of fire was put out (Tr. 103, Ex. A-1). The hold was inspected Friday morning by a Coast Guard inspector and others, who confirmed that there was no further fire (Tr. 103, Ex. A-1). The barley was trimmed, and the stevedores commenced reloading the lumber cargo into No. 1 hold at 5 P.M. on Friday afternoon, August 26 (Ex. A-1).

Fire Damage Summarized

The results of this accident moneywise are not in dispute.

Barley not delivered under the bill of lading — that is, both burned and good barley removed from No. 1

lower tween deck and No. 1 lower hold during August 22-25, amounted to 823,026 lbs. The agreed value of this quantity is $23,301.43 (Tr. 18). Salvage proceeds amounted to $15,368.89 (Tr. 19). Agreed special charges applicable to salvage are $1,490.84 (Finding XV, Tr. 31). In addition, the general average adjuster holds a general average deposit of $3,540.00 from the salvage proceeds pursuant to the average agreement between American Mail Line and consignee (Tr. 19, Ex. A-16). The balance of salvage proceeds has been remitted to libelant with interest (Tr. 19, 303).

In addition, the shipowner sustained losses in fighting the fire. Some of the expenses are listed in Exhibit A-10. A general average was declared, as provided in American Mail Line's bill of lading (Tr. 10, 11, 15, Ex. 6, clause 10). The general average statement has not been completed (Tr. 304).

Court's Findings

The court found that the fire was started by negligent burning of an electric cargo light (Tr. 21, Finding VII, Tr. 27). It further found that the starting of the fire was by negligence of crew members, in respect to which the respondent was not in privity (Tr. 21, Finding VII, Tr. 27). It found that there was a fire in the barley from the time smoke was first indicated on August 20 (Tr. 21, 22, Finding VIII, Tr. 27).

The court found that respondent delayed for an unreasonably long time in applying CO_2: the first use of it, on August 24, "accomplished the results which any prudent person would have in the exercise of due and ordinary care accomplished by similar methods within

the first twenty-four hours of the ship's arrival in Seattle." Captain Greenwood, and through him American Mail Line, was negligent for not employing carbon dioxide to fight the fire each and every day after August 21 (Tr. 22; see also Finding XIII, Tr. 30, 31).

The court awarded libelant the full damages prayed, and without assigning any reason denied respondent's claim for contribution to general average (Tr. 22, 23, Conclusion VI, VII, Tr. 34).

Decree

Decree was entered for libelant in the amount of $13,-972.54 with interest from the date the remaining barley was delivered in Japan, September 16, 1955, and costs. Cross-libel for general average contribution was dismissed with prejudice[1] (Tr. 36, 37).

SPECIFICATION OF ERRORS

1. Conclusion that shipowner is liable for damages resulting from fire caused by negligence of its employees, without its privity, ignored terms and intention of the Fire Statute, and was error.

2. The basic finding that respondent delayed for an unreasonably long time in applying CO_2 to No. 1 lower hold is unsupported by the evidence, and clearly erroneous (Oral Opinion, Tr. 22, incorporated in Findings XVI, Tr. 32, Finding XIII, Tr. 30, Conclusion III, Tr. 33).

3. The trial court erred in failing to make any findings whether the means and precautions which the ship

[1] Other items of interest awarded in the decree were by stipulation of counsel. They are not involved in this appeal.

took to fight the fire and make sure it was out were proper general average items under the Jason clause (compare Oral Opinion, Tr. 23, incorporated in Findings, Tr. 32, and Conclusion VII, Tr. 34).

4. The trial court erred in failing to charge libelant with special charges necessarily incurred to salvage the barley discharged at Seattle (Finding XV, Tr. 31).

ARGUMENT

1. Conclusion that while shipowner was not negligent in causing the fire, it was nevertheless liable for the damage, because of means it took to confirm existence of fire and to fight it, is wrong. Fire Statute and exemption from liability for fire in Carriage of Goods by Sea Act mean same thing. *Automobile Insurance Co. v. United Fruit Company*, 2 Cir., 224 F.2d 72, 75; *A/S J. Ludwig Mowinckels Rederi v. Accinanto, Limited*, 4 Cir., 199 F.2d 134, 143. Shipowner is liable only for fire caused by his neglect. Statute "makes no other exception from the complete immunity granted." *Earle & Stoddardt v. Ellerman's Wilson Line*, 287 U.S. 420, 425.

2. Finding that shipowner delayed for unreasonably long time in applying carbon dioxide to fire area is based on this speculation:

Use of CO_2 on August 24 "accomplished the results which any prudent person would have in the exercise of due and ordinary care accomplished by similar methods within the first twenty-four hours of the ship's arrival in Seattle" (Tr. 22, Finding XIII, Tr. 30). Therefore — although this is only implied — CO_2 should have been applied to No. 1 lower hold before the cargo above it was discharged.

Libelant had burden of proving this. *Automobile In-*

surance Co. v. United Fruit Company, 2 Cir., 224 F.2d 72, 75, and numerous other cases so hold. Libelant offered no evidence to prove that surmise—indeed, it contended there was no fire. Court does not mention this.

Court made no reference to uncontroverted fact that ship's officers, marine surveyors and appellant's port captain made thorough search of ship, and that none of them concluded there was a fire until August 22. It is presumed that the master's decision was properly made. *Star of Hope*, 9 Wall. 203.

Court does not mention uncontroverted fact that when existence of a fire was confirmed, officers and surveyors held meeting to decide best means of fighting it. Nor does court give any credit to their judgment.

Court made no reference to uncontroverted statement of opinion by Gow, that it was necessary to discharge cargo before applying CO_2, or reasons: perilous for longshoremen to work in a hold with CO_2; and CO_2 alone was not enough to put out a smouldering fire.

Court does not mention undisputed fact that No. 1 hold was discharged with utmost dispatch.

Court makes no mention that it was water, not carbon dioxide, which was necessary to cool off fire area.

Court could not have taken judicial notice of scientific fact or experience to justify its speculation—they confirm Gow's opinion.

Court nowhere mentions that ship's method of fighting the fire saved ship and other cargo, and all but small part of libelant's barley.

Court omits to mention or give any weight to fact that libelant failed to call any of actual witnesses who might have justified its speculation—surveyors, two

fire chiefs, several Coast Guard officers who were on board during search and time fire being fought.

3. Court ignored appellant's claim for general average (Oral Opinion, Tr. 23, Finding XIV, Tr. 31, and Conclusion VII, Tr. 34, are the only references to it).

Findings make no mention of contract between parties for general average, and appellee's average agreement. Undisputed evidence was that expenses and losses in the nature of general average were incurred, result of which was that master of *Oregon Mail* saved ship, rest of the cargo, and more than 88% of the value of libelant's cargo. All elements of general average were present. *The Jason*, 225 U.S. 32, 57. Court does not mention this.

Whether cargo was discharged before or after fire put out, same elements of expense were present, due to fire caused without design or neglect of shipowner.

Court does not mention this unless it meant to imply that *Oregon Mail* should have put to sea without inspecting fire area, which seems fantastic. In any event, court erred in not making relevant finding.

4.. Claim for special charges is governed by decision of first and second specifications of error. No separate argument necessary.

1. The Trial Court's Conclusions Ignore the Language and Intent of the Fire Statute.

The trial court found that the starting of this fire and its continuing to burn until the OREGON MAIL reached Seattle was caused by the negligence of crew members, without the privity of appellant shipowner (Oral Opinion, Tr. 21, incorporated in Findings, XVI, Tr. 32).

It further found that appellant, through its port cap-

tain, was negligent in not then applying carbon dioxide on each day after August 21—presumably until the early morning of August 24, when the carbon dioxide was released (Oral Opinion, Tr. 22, Finding X, XVI, Tr. 29, 32). This of course had to do with the time it took to confirm that there actually was a fire, and the time it took to discharge the cargo stowed over the barley in No. 1 hold.

This latter finding is based upon an unfounded speculation, as pointed out in the next section of this argument. But suppose there was some proper basis for the speculation? How does that warrant the conclusion that the Fire Statute can now be ignored? (Conclusion III, Tr. 33).

Revised Statutes §4282, 46 U.S.C. §182, states:

> "*Loss by fire.* No owner of any vessel shall be liable to answer for or make good to any person any loss or damage, which may happen to any merchandise whatsoever, which shall be shipped, taken in, or put on board any such vessel, by reason or by means of any fire happening to or on board the vessel, unless such fire is caused by the design or neglect of such owner."

The bill of lading in this case (Ex. 6) is also subject to the Carriage of Goods by Sea Act, 46 U.S.C. § 1304 (2) (b), which provides that neither carrier nor ship shall be responsible for damage arising or resulting from—

> "(b) Fire, unless caused by actual fault or privity of the carrier."

Fortunately, the exemptions under both acts are considered identical as to a shipowner-carrier. *Automobile*

Insurance Co. v. United Fruit Company, 2 Cir., 224 F.2d 72, 75; *A/S J. Ludwig Mowinckles Rederi v. Accinanto, Ltd.,* 4 Cir., 199 F.2d 134, 143. The semantic differences between "design and neglect" and "actual fault or privity" can therefore be ignored.

Mr. Justice Brandeis, speaking for the court in *Earle & Stoddardt v. Ellerman's Wilson Line,* 287 U.S. 420, states this proposition in direct and forcible terms:

> "*First.* The fire statute, in terms, relieves the owners from liability 'unless such fire is caused by the design or neglect of such owner.' The statute makes no other exception from the complete immunity granted." (425)

By what warrant does the trial court choose to ignore the plain language of the statute and the equally plain language of the Supreme Court? It does not say.

Certainly the Fire Statute is not to be strictly construed against appellant. *Consumers Import Co. v. Kabushiki Kaisha Kawasaki Zosenjo,* 320 U.S. 249, 254, overrules this contention precisely, pointing out the intended purpose of the statute to relieve American ocean carriers of the burden of fire insurance.

Certainly the statute was not intended to provide for hair-splitting about damage done after the fire started and before it was found, and after it was found and before it could be brought under control, and while it was being extinguished. This would bring absurd results, as pointed out in *American Tobacco Co. v. The Katingo Hadjipatera,* SD N.Y., 81 F.Supp. 438, 446, affirmed 2 Cir., 194 F.2d 449. To paraphrase from *Consumers Import Co. v. Kawasaki K.K. Kaisha,* 2 Cir., 133 F.2d 781,

affirmed *sub nom. Consumers Import Co. v. Kabushiki K.K. Zosenjo,* 320 U.S. 249, "we must not clutch at such straws to find liability, or construe the Fire Statute grudgingly" (133 F.2d 785).

The conclusion by the trial court below ignores the plain language of the Fire Statute. It is wrong. Appellant was entitled to exoneration.

2. There Was No Evidence to Justify Court's Speculation What "Any Prudent Person" Would Do.

We contend that there was no evidence to support the court's finding that "any prudent person" would have put out this fire in 24 hours by simply shooting CO_2 into the barley hold. This was no more than speculation, and clearly erroneous.

Our contention gives proper basis for review of the finding. *States Steamship Company v. United States,* 9 Cir., 259 F.2d 458, 460, referring to the rule in *McAllister v. United States,* 348 U.S. 19, 20.

Burden of Proof Was on Libelant

Before examining the evidence, however, it should be pointed out that this is a case under the Fire Statute, R.S. 4282, 46 U.S.C. § 182.

It has been uniformly held that the Fire Statute places the burden on cargo interests to establish that the fire was caused by the negligence of the shipowner. *Automobile Insurance Co. v. United Fruit Company,* 2 Cir., 224 F.2d 72, 75, *supra,* is one of many such decisions.

Of course here there is no claim that the fire was caused by the personal neglect of American Mail Line

(Tr. 27). Rather, the trial court reads into the statute a qualification, "or unless such fire is not promptly put out" through the neglect of the shipowner.

This is a questionable liberty with the words adopted by Congress. However, it follows the reasoning of *Great Atlantic & Pacific Tea Co. v. Brasileiro,* 2 Cir., 159 F.2d 661, 665, and our attack now is not on this construction of the act, but rather upon the complete failure by libelant to sustain its burden of proof.

Libelant Offered No Evidence

At all times during the trial libelant maintained that there had been no fire. It denied the allegation of fire damage in its answer to cross-libel (Par. I (1), Tr. 15). It frequently objected to the witnesses describing this as a "fire" (*e.g.,* Tr. 49, 100, 143). The only witness it called was the chemist Smith, to say there was no fire (Tr. 239 *et seq.*).

Certainly, therefore, the trial court did not draw from libelant's evidence its conclusion that "any prudent person" would have shot CO_2 into the barley hold on August 21 or August 22.

No Witness Agreed with Mr. Prudent Person

Hindsight comes easy in a courtroom, long after the crisis is over and done with. This is illustrated by the question the trial judge put to Mr. Gow:

> "THE COURT: Is it or is it not the fact as you now know the fact to be that it was at all times a fire from and after the 20th day of August, 1955?
>
> A. Yes, sir." (Tr. 212)

The truth is, however, that none of the witnesses came to that conclusion on Sunday, August 21, the day the

court said that "any prudent person" would have reached for the CO_2.

The recollections of the witnesses who were on the ship on the night of August 20 and during August 21 are set out in Appendix B, pp. 36-37 of this brief. It is obvious that all of them were acutely aware of the possibility of a fire, probably in No. 1 lower hold. But the important thing is that skilled, intelligent observers, with this serious responsibility facing them, did not draw the conclusion which comes so easy now.

Surveyor James Gow has been called in some 25 to 30 ship fire cases (Tr. 176). He has had 36 years of experience as a professional marine surveyor (Tr. 175). Greenwood called him to come to the OREGON MAIL on the morning it arrived in Seattle, August 21, to determine if there was a fire (Tr. 178, 211, 222). He went, and searched, smelled, looked (Tr. 176, 177, 178, 179, 212, 213, Ex. A-1, 1155 August 21).

> "THE COURT: (to MR. Gow) It is a question of what you determined. Did you find a fire on that ship on the 21st of August, is what Counsel wants to know.
>
> A. No, sir." (Tr. 180)

No one else on board determined that there was a fire, that day.

The master, Captain Wilmarth, who was aware of developments from the first report of "suspicious odor" on the previous night, could not satisfy himself whether there was a fire (Tr. 75-79, 162). He was a licensed master with much experience (Tr. 73, 74).

Chief Officer Palmer, Surveyor Skewes, Surveyor

Johnson and Port Captain Greenwood all looked. Nowhere is there evidence that they or anyone else could confirm existence of a fire—and the evidence in the log book is the opposite:

> "No visible sign of smoke or fire. It was recommended that a continuous watch be maintained on the smoke detector unit. This was complied with." (Ex. A-1, 1255 August 21)

How—except by hindsight—can it be said that "any prudent person" would then start fighting a fire that no one actually on board could confirm existed?

At this point it is in order to point out that Captain Wilmarth was in charge of the ship. He—not the trial court—was responsible for its safety. He sought competent help, secured it, and made a decision. The words of Mr. Justice Clifford in *Star of Hope,* 9 Wall. 203, are appropriate. There also the ship had a cargo fire. It was off the coast of Patagonia, and the master had to make a decision whether to attempt a stranding or attempt to enter a bay without a pilot.

> "Owners of vessels are under obligation to employ masters of reasonable skill and judgment in the performance of their duties, but they do not contract that they shall possess such qualities in an extraordinary degree, nor that they shall do in any given emergency what, after the event, others may think would have been best. * * * if he is a competent master, if an emergency actually existed calling for a decision whether such sacrifice was required, and if he appears to have arrived at his conclusion with due deliberation, by a fair exercise of his own skill and judgment with no unreasonable timidity, and with an honest intent to do

his duty, *it must be presumed, in the absence of proof to the contrary, that his decision was wisely and properly made.*" 9 Wall 230, 231. (Italics supplied)

Decision to Discharge Based on Expert Opinion

There was no visible change in conditions during the night of August 21/22 (Tr. 152; Ex. A-1).

On Monday morning, August 22, Gow and others did observe faint smoke in the detector (Tr. 85, 152-154, 181). The master could see light smoke from the port king post "if the sun was just right" (Tr. 85). The officers, surveyors and company officials met, concluded there was a fire in No. 1 hold, and decided to take out the cargo over the barley (Tr. 81-83, 153, 154, 182, 224, 226, 227).

Is there evidence to support the finding that "any prudent person" would now flood the No. 1 lower hold with CO_2? No. The method which Gow recommended was carefully reasoned. It safeguarded the stevedores, insured that the fire would actually be put out, and succeeded.

(A) The known conditions in the ship were: there was now definite evidence of a smouldering grain fire in No. 1 lower hold. The barley was overstowed with lumber, a flammable cargo, and other cargo in the lower and upper tween decks, amounting to over 400 tons.[2] There were fuel oil tanks behind the after bulkhead in No. 1 lower hold. The ship and cargo were now definitely in danger (Tr. 104, 105).

---

[2] This particular figure does not appear in record. See summary of cargo tonnage removed to get at fire area, Ex. A-1, August 26, and computation in Appendix D.

In this situation, the men who met—the master, the chief officer, surveyors Gow and Brady, the port captain and the operating manager for American Mail Line—were responsible for protecting millions of dollars worth of ship, cargo and pier, and also for safeguarding the men who would have to work in No. 1 hold.

Nothing in the findings mentions these facts.

(B) Carbon dioxide is a useful weapon in fighting a fire (Tr. 183) but it is dangerous to humans (Tr. 184) and it is not fully effective in extinguishing a smouldering fire.

The testimony explaining why American Mail Line started taking cargo out of No. 1 hold instead of flooding it with carbon dioxide gas, is as follows:

> "Q. Now, Mr. Gow, why wasn't the carbon dioxide used until the morning of August the 24th?
>
> A. The reason for that was that the fire was in the—we had determined that the fire was coming from—the smoke was coming from the lower hold, therefore we considered—I considered that the fire was in the number one lower hold. There was cargo in the 'tween deck, which didn't give you an opportunity for access to the number one lower hold. Therefore, that cargo had to be removed. Carbon dioxide is a heavier-than-air gas and it shuts off the oxygen, and at a certain percentage it won't sustain fire, fire can't be sustained under it and even human life can't. It affects a person's breathing and you suffocate. For that reason you couldn't put longshoremen into the hold to take the cargo out of the 'tween deck with a possibility of the gas leaking, because when the gas comes from—when carbon dioxide is set off and the gas comes in, it comes in under a turbulence, there's a heavy pres-

sure under it, and you could get gas up in the 'tween deck and it would be dangerous to put men in there, and you couldn't put men in there without a gas mask.

Q. In your opinion as a professional surveyor was it necessary to remove this cargo in the upper 'tween deck of the number one hold?

A. Very definitely." (Tr. 184)

This is nowhere disputed.

The fact is also that the barley had to be cooled before the fire could be fully extinguished. Carbon dioxide has only a slight cooling effect.

> "It's not a heavily cooling effect, but it shuts off the oxygen to whatever is burning, and it settles over there and as it diffuses, then if oxygen gets to it, why that glowing mass will come right back up again either to a heavier glow or to an actual fire, but you have reduced the carbon dioxide which was holding that down to smother it." (Tr. 209)

This is why the fire area had to be sprayed with water when it was exposed (Tr. 196, 279, 283, 284, Ex. A-1), after it had been smothered in CO_2 for more than 35 hours.[3]

There is no evidence whatever disputing these very important facts.[4]

---

[3] First release of CO_2 was 800 lbs. at 0305 on August 24. Last release was 800 lbs. plus one portable bottle at 1330 on August 25. Chief Officer Palmer entered with water hose at 1415, August 25. Ex. A-1, Tr. 88, 89, 279, 283, 284. The trial court's idea that anyone could have put out fire with CO_2 alone, within 24 hours, Tr. 22, without even blanketing the surface of the barley, has no support whatever in the record.

[4] Certainly the court did not take judicial notice of common matters of science which in some way contradicted Gow's testimony. See Appendix C, Scientific Data Regarding Carbon Dioxide.

(C) Gow's method succeeded. American Mail Line saved over 88% of the value of libelant's barley.[5] There was only superficial damage to one hold of the ship. All the rest of the cargo was saved (Ex. A-1).

The trial court makes no mention of these facts.

Libelant Did Not Call Available Witnesses

Finally, it is necessary to call attention again to libelant's burden of proof.

The "any prudent person" must have had some qualified witness who would back up his idea that all you had to do was shoot carbon dioxide into the hold.

Why did libelant fail to call any of the other surveyors who were aboard?

Why did libelant fail to call Fire Chief Kennedy, who was on board the same day that the OREGON MAIL started discharging cargo from No. 1, and again on the 23rd? (Ex. A-1, 2230 August 22, 1930 August 23).

Why did libelant fail to call Fire Chief Graham, who came aboard to inspect the next morning, and also on the 25th? (Ex. A-1, 0905 August 23, 1610 August 25).

Why did libelant fail to call the officers of the United States Coast Guard who were aboard on the 23rd and the 25th? (Ex. A-1, 0920 August 23, 1430 August 25).

Why did libelant fail to call any one?

The evident inference is that they would have agreed with Gow and not with the ethereal "any prudent person."

---

[5] This figure as such is not in the record. For computation see Appendix D.

The trial court makes no mention of the fact that no one disputed Gow's opinion. Indeed, it makes no mention of Gow's opinion!

3. Court Should Have Required Libelant to Pay Its Share of General Average.

The court erred in summarily dismissing American Mail Line's claim against libelant for contribution in general average (par. 3, Tr. 37) without making any findings whatever on the essential facts of the claim.

General average clause in the bill of lading provides in part:

> "In the event of accident, danger, damage or disaster, before or after commencement of the voyage resulting from any cause whatsoever, whether due to negligence or not, for which, or for the consequence of which, the carrier is not responsible, by statute, contract, or otherwise, the goods, shippers, consignees, or owners of the goods shall contribute with the carrier in General Average to the payment of any sacrifices, losses, or expenses of a General Average nature that may be made or incurred, and shall pay salvage and special charges incurred in respect of the goods. * * * " (Ex. 6, cl. 10)

This is the accepted "Jason clause" presently used. See Lowndes & Rudolf's General Average and the York-Antwerp Rules (8th ed., 1955), 288. It is valid. *The Jason,* 225 U.S. 32, 55, 56. It is necessary to prevent the confusion and chaos in general average adjustment which followed in the wake of *The Irrawaddy,* 171 U.S. 187, and *The Strathdon,* 2 Cir., 101 Fed. 600.

The facts which give rise to this argument are simple and undisputed. American Mail Line claimed for con-

tribution in general average (Tr. 10-13). Tokyo Marine & Fire Insurance Co., Ltd., approved the general average agreement signed by the cargo owner (Tr. 15, 16, Ex. A-16). Horder, Jacobs & Speck, Inc., the average adjusters, hold $3,540 of barley salvage proceeds as a general average deposit (Tr. 19) and $1,490.84 for expenses of salvaging barley for libelant's interest. The general average statement has not been completed, and only prospective liability for such contribution as is properly stated is now in issue (Finding XIV, Tr. 31, Tr. 288, 304, Ex. A-16).

The trial court found that the starting of the fire resulted from negligent acts on the part of members of the ship's crew, in respect to which the respondent as the vessel's owner and operator was not in privity (Tr. 21, incorporated in the Findings, XVI, Tr. 32).

The evidence clearly showed that there were expenses and losses in the nature of general average (Tr. 185-187, Ex. A-10). Vessel and cargo were in peril (Tr. 104, 105). It was the master's decision to commence discharging the cargo above the barley, and to stop loading at all other holds (Tr. 91, 118). The ship did put out the fire, and it saved over 88% of libelant's cargo.[6]

All of the elements of general average are here, "the essence of which is that extraordinary sacrifices made and expenses incurred for the common benefit and safety are to be borne proportionately by all who are interested." *The Jason,* 225 U.S. 32, *supra,* at 57.

The court made no finding that these expenses and the loss to the shipowner were unnecessary.

---

[6] This figure is explained in Appendix D.

It stated that Mr. "any prudent person" would flood the No. 1 hold with carbon dioxide without waiting to clear away the overstowed cargo. No witness said so. But what if he had?

What would libelant's argument be if the OREGON MAIL had set out to sea without discharging the overstowed cargo and the barley in No. 1 lower tween deck to make dead sure the fire was out, and the ship had then burned and gone to the bottom?

The speculation that Mr. "any prudent person" would be smarter than Wilmarth or Gow or Greenwood, and start shooting carbon dioxide before a fire was confirmed, has nothing to do with this issue. The only evidence in the case is that it was necessary to spend the time and money to dig out over 800 tons[7] of cargo in No. 1 hold, non-stop (Tr. 86), delay virtually all other cargo operations from August 22 to August 26 (Tr. 91, 103-105) and use 46 200-lb. bottles of carbon dioxide to fight the fire (Tr. 88, 89).

There is no testimony that such sacrifices would have been unnecessary if Mr. "any prudent person" had come on board on August 20, armed with all the hindsight in our transcript. Much less August 21, or August 22, when the existence of fire was confirmed (Tr. 182).

Since it was proved that the parties contracted for contribution in general average under the terms of the Jason clause (Ex. 6, clause 10), a general average was declared (Finding XIV, Tr. 31), and libelant gave a general average guarantee (Ex. A-16), and since it was

[7] This particular figure does not appear in record. For explanation see Appendix D.

also proved that the fire was started without the design or neglect of respondent shipowner (Tr. 21, Finding XVI, Tr. 32), and that by reason of the existence of that fire sacrifices were made to save the venture, and that the master did succeed in extinguishing the fire and saving libelant's cargo, the cross-libel for general average contribution should be allowed.

4. Special Charges

Expenses paid to salvage the damaged portion of libelant's barley were $1,490.84. It is agreed that this amount was reasonable and proper. That sum is retained by appellant from the salvage proceeds remitted to appellee, under terms of the bill of lading (Finding XV, Tr. 31, 32, Ex. 6, Cl. 10). The trial court adjudged in effect that the shipowner is to pay these expenses (Conclusion V, VI, Tr. 34).

It is submitted that if the damage to appellee's cargo was caused without the design or neglect of appellant —as determined under the first and second specifications of error—then appellee cargo insurer is obliged to pay the agreed and reasonable cost of salvaging its cargo.

CONCLUSION

Appellant submits that there was no lawful basis for the court's finding that although the fire in the Oregon Mail was caused without its design or neglect, it was deprived of the statutory exemption from liability because its officers did not shoot CO_2 into the hold before a fire had even been confirmed, in disregard of human life and the known limitations of CO_2.

The decree awarding appellee damages, and denying

appellant its claim for contribution in general average and expenses of salvaging appellee's damaged cargo, should be reversed.

Respectfully submitted,

Bogle, Bogle & Gates
M. Bayard Crutcher
Donald McMullen
Proctors for Appellant.

APPENDIX A — TABLE OF EXHIBITS

No.	*Description*	*Identified*	*Offered*	*Received or rejected*
1	photo, No. 1 switch panel, both doors opened	71, 72	72	admitted, 72
2	sample of charred barley from OREGON MAIL	206, 239, 240	241	Admitted 241
3	Tempil Chart	241, 242	242	Admitted 244
4	sample of charred barley from experiment	248	250	Admitted 250
5	section of cable from experiment	253	255	rejected, 255
6	bill of lading	290	290	Admitted 290
7	copy of invoice	290	290	Admitted 290
A-1	rough deck log book	45, 82	82	admitted, 82
A-2	photo, forward deck of OREGON MAIL	80, 81	288	Admitted 288
A-3	blueprint, capacity and deck plan for OREGON MAIL	94	95	admitted, 95
A-4	copy, part of A-3	95	95	admitted, 95
A-5	final stowage plan	140	281	Admitted 281
A-6	photo, switch panel, showing switches	147	148	Admitted 148
A-7	photo, resistor house screening and lock	147	148	Admitted 148
A-8	photo, switch panel, closed	147	148	Admitted 148
A-9	loading survey report, Bennett	171	.....	.....
10	Gow survey report, commencing from Int. No. 15, Page 2, par. 6 to end	190, 191	192	Admitted 192
11	photo of port cargo light in after trunk, from No. 1 LH	219, 220, 289	289	Admitted 289
12	photo of starboard cargo light in after trunk, opposite light shown in A-11	219, 220, 289	289	Admitted 289
13	photo of deckhead, aft of hatch, No. 1 LH	219, 220, 290	289	Admitted 289
14	Another view of deckhead, aft of hatch, No. 1 LH	219, 220, 290	289	Admitted 289
15	Cargo light	237, 286	238	Admitted 238
16	Average agreement between parties	18, 290	290	Admitted 290

APPENDIX B — TESTIMONY ABOUT SMOKE

Witness	*Time*	*Recollection When Testifying*	*Log Book Record (Ex. A-1)*
2/O Tomlin	August 20 1800	slight smoke from detector No. 1 (Tr. 46, 47)	1800 2nd Mate informed master & CH mate of a suspicious odor coming from the smoke detector. Checked same and no visible signs of smoke showing. CH mate and 2nd Mate checked all cargo spaces except No. 1 L/H which is plugged with grain. Nothing unusual found.—RP.
Capt. Wilmarth	same	no smoke visible (Tr. 75-78, 110) no smoke reported (Tr. 75, 76, 106)	same
C/O Palmer	same	smoke from detector reported (Tr. 142) could not find any smoke or sign of fire (Tr. 143, 145)	same
C/O Palmer	August 21 0900	greyish smoke from King post (Tr. 150)	"0900 suspicious odor still present in smoke detector unit, but no visible signs of smoke. Again checked all available cargo spaces, except No. 1 L/H for same odor, but nothing was found, checked exhaust vent unit from No. 1 aft king post, and found the same odor, notified the master, who called Capt. Greenwood AML Port Captain." (Ex. A-1) Rodney Palmer.
Capt. Wilmarth	same	no smoke visible (Tr. 77)	
[illegible]	[illegible] 1150	no visible sign of smoke or fire	Surveyors Skewes, Johnson also aboard,

		no smoke visible (Tr. 177, 178)	after the inspection
	1600-1800		"It was recommended that a continuous watch be maintained on the smoke detector unit. This was complied with." (Ex. A-1, continuing above entry). R.P. "Continuous watch maintained on smoke detector apparatus, thereafter checked every ½ hour. Frequent inspection of entire ship made."
	2400 August 22 (Monday) 0100 0000/0800		"All in order." "Smoke detectors checked every ½ hour." "frequent rounds made about ship," "all in order."
	0830		"Alexander Gow men aboard to check smoke detector."
	0900		"Mr. James Gow, Capt. Brady, surveyor, Capt. Swanson, Capt. Greenwood and Master inspected smoke detector unit which was concentrated on air from No. 1 L/H what appeared to be smoke was observed to be coming from this area, all other units were tried separately, but no signs of smoke from these areas. It was then agreed to commence discharging lumber from No. 1 L/TD at 1300 so grain could be obs No. 1 L/H. RP."
Capt. Wilmarth	morning	"a wisp of smoke" in detector (Tr. 85)	
James Gow	morning	detectible smoke in the detector (Tr. 181)	

APPENDIX C

SCIENTIFIC DATA REGARDING CARBON DIOXIDE

This case comes to the Court of Appeals in an odd posture. There was only witness who discussed the limitations of carbon dioxide in fighting this fire, James C. Gow. He explained that CO_2 was dangerous to human life, and not an effective coolant, and that in his opinion it was necessary to discharge the cargo over the barley before shooting the gas into No. 1 lower hold. See pages 27-29 of this brief.

Appellee offered no evidence to contradict this. It was appellee's burden to prove negligence, and appellant had no way of knowing that the trial court would either ignore Mr. Gow, or disbelieve him. The oral opinion clearly shows that the court gave no weight whatever to Gow's testimony (Tr. 22).

The only ground which can be imagined for such action by a court of law is that it took judicial notice of some matter of common scientific knowledge *sub judice,* so to speak. But scientific sources seem to clearly substantiate Mr. Gow's testimony.

1. Danger to Human Life

NFPA Handbook of Fire Protection (11th ed., 1954), p. 355, states that "increased carbon dioxide and combined effects of carbon monoxide plus carbon dioxide" is one of the main causes of fire deaths.

It is suffocating, if heavily concentrated (p. 1180).

The tragic suffocation of three longshoremen in a hold of the motorship Asa Lothrop at Tacoma, Washington, on December 29, 1949, is a vivid reminder of

what CO_2 can do. This accident was the subject of proceeding before a Board of Investigation designated by the Commandant, United States Coast Guard, in the matter of inquiry into the facts surrounding the death of Albert J. Nysen, Del J. Thiel and William Flannery, longshoremen aboard the motor vessel ASA LOTHROP, at Tacoma, Washington, on 29 December, 1949, while engaged in handling cargo, conducted January 11 to 19, 1950, at Coast Guard Headquarters, Seattle. It was likewise the subject of three civil suits against Alaska Ship Lines, Inc., in the Western District of Washington, Southern Division, Cause Numbers 7608, 7609, 7610.

2. Incomplete Effect on Smouldering Fires

NFPA Handbook of Fire Protection, supra, Ch. 62, deals with carbon dioxide extinguishing systems.

> "Carbon dioxide fire extinguishing systems are effective primarily because they reduce the oxygen content of the air to a point where it will no longer support combustion. Under suitable conditions of control and application a cooling effect is also realized. * * *
>
> "A reduction of the oxygen content of the air from the normal 21 per cent to 15 per cent will extinguish most fires in spaces which do not include materials that produce glowing embers or smouldering fire. The amount of oxygen necessary to support combustion varies with different materials (see Table 1189). Reduction to considerably less than 15 per cent is required in some cases. To extinguish fires completely in areas or spaces containing materials which will produce glowing embers or smouldering fires, or fires involving highly heated

metal containers, it is necessary to reduce the oxygen content to 6 per cent or less and to maintain that dilution for more than the normal brief period. Otherwise, a reflash may occur." (1179)

Layman, *Attacking and Extinguishing Interior Fires* (National Fire Protection Association, Boston, 1952), explains the fire chemistry which accounts for this limitation on the use of carbon dioxide:

"Flame production ceases when the oxygen content of the surrounding atmosphere decreases to approximately 15 per cent. Fires involving gases and liquids are extinguished completely when flame production ceases but this is not true in the burning of solid combustibles. Decomposition begins once a solid fuel is heated sufficiently and the volatile products of the fuel are released in gaseous form. Flame results from the burning of the gases and vapors after they have obtained a proper air mixture. Although flame production ceases when the oxygen content of the surrounding atmosphere falls below 15 per cent, smouldering burning of the solid residue will continue in an atmosphere containing a much lower percentage of oxygen." p. 7.

APPENDIX D

EXPLANATION OF VARIOUS COMPUTATIONS

Tonnage of overstowed cargo in No. 1 tween decks which had to be discharged to get at the barley, as extracted from deck log book, Ex. A-1, August 26:

	Short Tons
Gilsonite	28
500 sx. asbestos (est. @ 50 lbs.)	12
4,200 sx. flour (@ 40 sx. per ton)	95
177,806 FBM timbers approx.	294
DISCHARGED TO GET AT BARLEY	429 short tons

Barley discharged to reach and clear fire area and smoke-tainted barley:

15 trucks, approx.	335
2 gondola cars	55
TOTAL CARGO DISCHARGED	819 short tons

Appellee's net loss does not appear as a single figure in the record. The invoice value of the shipment, cost and freight, was $124,580 (Ex. 7). Agreed C.I.F. value of the non-delivered barley was $23,301 (Tr. 18). Of this, $10,338 was repaid from salvage (Tr. 19, 303). The balance of appellee's loss is therefore roughly $12,963, including the general average deposit and payment of special charges for salvaging damaged barley. Its loss is certainly no more than 12%.